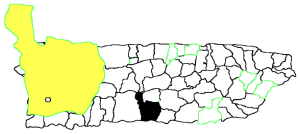
EPA REGION 2
CONGRESSIONAL DIST. 01
Arecibo District
Vega Baja

VEGA BAJA SOLID WASTE DISPOSAL SITE VEGA BAJA, PUERTO RICO



EPA ID# PRD980512669

Site Description

The Vega Baja Solid Waste Disposal Superfund Site (Site) contains approximately 72 acres and includes an unlined and uncapped solid waste disposal and open burning area. It is located in the Río Abajo Ward of Vega Baja, Puerto Rico, approximately 1.2 miles south of the Vega Baja downtown area. The Site includes a 55-acre residential area currently known as "Brisas del Rosario" which contains an estimate of 213 dwellings and a 17-acre undeveloped, uninhabited area. The Site is situated on relatively flat terrain and it is surrounded by other residential areas to the north, east and west and is bordered to the south by conical limestone hills, known as "mogotes". The Río Abajo Head Start is the nearest school and is located next to a baseball park approximately 0.21 mile from the Site. According to the Puerto Rico Environmental Quality Board's (EQB's) Expanded Site Investigation (ESI), the population within a four-mile radius of the Site is more than 40,000. The population within a one mile radius of the Site is approximately 6,871 and 2,280 within one-quarter mile.

Between approximately 1948 to 1979, the municipality of Vega Baja used the Site as an unlined solid waste disposal and open burning facility that received commercial, industrial, and domestic waste. It is estimated that more than 1.1 million cubic yards of waste were disposed of and/or burned at the facility. At the time of disposal and burning activities, the Site was owned by the Puerto Rico Land Authority (PRLA).

Local residents began constructing homes on portions of the uncapped waste disposal area beginning in the late 1970s. Many houses at the Site are built on and around the landfill trash with some piles (mounds) having elevations of over eight feet.

In 1984, the PRLA transferred the Site property to the Puerto Rico Housing Department (PRHD). The PRHD is believed to be the current owner of the 17 undeveloped acres within the Site and of certain parcels within the residential area of the Site. The PRHD has transferred title to some of the parcels within the Site, but it is unclear, at this time, which residents have deeds to the properties.

In 1998, EPA conducted a Removal Assessment. A total of 3,693 samples were collected and analyzed

during the assessment. The Removal Assessment was divided into three phases: (1) Phase I. This phase was focused on the entire Site as one unit. The sampling was conducted from April 14 to June 8, 1998. A total of 814 samples were collected and analyzed. Lead concentrations across the Site ranged up to 14,000 mg/kg (ppm). The highest lead concentration found in the residential area was 2,000 ppm at 1.0 ft depth. A total of 72 soil samples were analyzed for Pesticides and PCBs. Dieldrin was the pesticide detected most frequently and with the highest concentrations. Dieldrin was detected in 20 samples with concentrations ranging up to 950 ppb. Of the PCBs, weathered Aroclor 1254 was detected in six samples with concentrations up to 400 ppb. The Pesticide/PCB detections were found in the southern section of the Site and correlates with the occurrence of garbage. (2) Phase II. During this phase each residential lot was sampled as a discrete unit and analysis focused on soil lead content. The sampling was conducted from August 3 to November 1998. A total of 214 residential lots were sampled and 2,823 soil samples were collected and analyzed. The residential areas lead concentrations ranged up to 7,100 ppm at 1 ft. depth. An extensive area in the residential development with high lead concentration is located in the southwestern section of the Site. (3) Phase III. This phase was focused on sampling the four garbage mounds in the residential area. The sampling was conducted from December 5 to December 16, 1998. The objective of this phase was to estimate the area of the mounds, the thickness of the garbage and the level of lead contamination within the mounds. A total of 56 samples were collected and analyzed. Lead concentrations from the garbage mound sampling ranged up to 2,800 ppm.

On July 22, 1999, the Site was listed on the National Priority List. The Site was as divided in two operable units. Operable Unit One (OU-1) to address the groundwater contamination and Operable Unit 2 (OU-2) to address soil contamination. On August 1999, EPA started a Time Critical Removal Action at the Site. Three residential lots were properly cleaned-up due to the high lead levels found in the residential soil. The Time Critical Removal Action was completed on July 2001.

On September 2000, EPA started a Remedial Investigation (RI) for OU-1. As part of the OU-1 RI, EPA collected groundwater samples to define the nature and extent of Site-related contamination in the underlying groundwater. Two rounds of groundwater samples were conducted; the first round was conducted on May 2002 after completion and development of seven (7) new RI monitoring wells, and the second round occurred in July 2002. For each round, samples were collected from seven new RI monitoring wells, three existing monitoring wells, one spring water, and five off-Site water supply wells. The findings of the OU-1 RI indicate that the groundwater beneath the Site is essentially free of Site-related contaminants and that there were not exceedances of regulatory standards or criteria for spring water indicating that the groundwater discharging to the surface at the spring is unaffected by the Site. The OU-1 remedial investigation (field work) was completed on October 2002.

On June 2001, EPA conducted a limited soil sampling to determine if dioxin was a chemical of concern. A total of 121 soil samples were collected and analyzed. Only one sampling point, located in the wooded area to the south, had dioxin concentrations above the recommended action level of 1 part per billion. A report was finalized in February 2002. The report concluded that the residential and undeveloped areas do not warrant any removal or remedial action for dioxin and that dioxin is not considered as a chemical of concern.

On April 2003, EPA completed its negotiation with the identified Potentially Responsible Parties (PRPs) and signed a Consent Order to conduct a Remedial Investigation and Feasibility Study to OU-2. EPA identified as PRPs the following entities: Municipality of Vega Baja (operator), Puerto Rico Housing Department (owner), Puerto Rico Land Authority (owner), Motorola (generator), Pfizer (generator), Puerto Rico Electric Power Authority (generator), and Browning-Ferris Industries of Puerto Rico

(transporter).

EPA approved the Remedial Investigation Report for OU-1 on July 18, 2003. On November 24, 2003, EPA issued a Proposed Plan to describe the No Action Alternative recommended for the OU-1 and to present the rationale for the recommendation. On December 4, 2003, EPA conducted a Public Meeting at the Site to present the No Action Alternative. The Public Comment Period ended on December 24, 2003, with no extension requested.

On April 6, 2004, the Record of Decision for Operable Unit One: Groundwater was signed.

Site Responsibility:

The OU-1 for the Site was addressed through Federal actions. The OU-2 for the Site is being addressed through PRP actions.

NPL LISTING HISTORY
Final Date: July 1999

Threats and Contaminants

Soil is contaminated with lead, arsenic, pesticides. Approximately 213 houses had been built on the top of the landfill. Direct exposure to contaminated soil is evident.

Cleanup Approach

On April 2003, the Potential Responsible Parties signed a Consent Order to conduct a Remedial Investigation and Feasibility Study at Operable Unit Two- Soils. The field work is scheduled to begin on June 2004.

Response Action Status

The Remedial Investigation and Feasibility Study field work for Operable Unit Two- Soils is scheduled to begin on July 2004 and be completed by December 2004.

Environmental Progress

A Time Critical Removal Action was completed on July 2001. The Remedial Investigation for Operable Unit One- Groundwater was completed on July 2003. A Record of Decision for Operable Unit One-Groundwater was signed on April 2004. A consent Order to conduct a Remedial Investigation and Feasibility Study was signed on April 2003.